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ABSTRACT

The elementary schools attended by students may affect their attitudes toward and academic performance in junior high school. Eighth grade students attending a junior high school in Kentucky in 1980 were asked to indicate how they felt about junior high school before they entered the seventh grade and what their attitudes were by the end of the eighth grade. Their performances on the Comprehensive Tests of Basic Skills in the sixth grade and in the eighth grade were compared to determine changes in academic performance. Analysis showed that students from different feeder schools had different degrees of academic preparedness for seventh grade. Where preparedness was roughly equal, the feeder school attended related significantly to reading comprehension and science scores in the eighth grade. Among areas where preparedness varied, only learning gains in vocabulary and total test battery scores were related significantly to feeder school attended. The school attended related significantly to 6 of the 24 measured attitudinal items indicating pre-junior high school feelings. Changes in these attitudes during the first two years of junior high school related to feeder school attendance in only two cases. (Author/PGD)

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Does Feeder School Make A Difference In Junior High Achievement and Attitudes?

PREPS RESEARCH PROJECT

1979-80

LaRue County School System
Hodgenville, KY 42748

Report by

Marie J. Abram, Ph.D.

CS 013 784

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FORWARD

This document is the final report of a PREPS research project conducted by the PREPS research team of the Professional Development Center Network at Western Kentucky University and Mr. Joseph E. Hoggard of the LaRue County School System, Hodgenville, Kentucky.

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INTRODUCTION

Mr. Joseph Hoggard, administrator at LaRue County Junior High School, was concerned with studying whether there was a relationship between feeder school and (1) student's academic performance and (2) student's attitudes in junior high. The setting of the problem is a school district where three elementary schools funnel into a single junior high school. As is to be expected, each of the feeder schools has its own philosophy regarding the academic and personal skills it chooses to most fully develop in its students. It was the intention of Mr. Hoggard to determine whether the following would differ by feeder school:

(1) level of academic preparation at the time of entrance into junior high

(2) academic learning during seventh grade

(3) student attitude upon entering junior high

(4) change in student attitude over the time spent in junior high.

RESEARCH HYPOTHESES

The study was designed to test the following hypotheses:

(1) Is there a relationship between student's scores on the Comprehensive Test of Basic Skills (CTBS) administered at the end of sixth grade and the feeder school they attended?

(2) Is there a relationship between learning gained during the seventh grade and feeder school attended?

(3) Do students from the three feeder schools express significantly different opinions at the beginning of junior high?

(4) Do students from the three feeder schools change their opinions to a greater or lesser extent by the time they are preparing to leave junior high?

INSTRUMENTATION

Achievement test data was taken from students' school records. The achievement test administered both at the end of sixth grade and at the end of seventh grade was the nationally normed Comprehensive Test of Basic Skills (CTBS) developed by McGraw-Hill (1976). Only percentile scoring was available for this research.

The 24 item attitude instrument was jointly designed by LaRue County school personnel and the PREPS research staff. It was designed so that students could give an answer to each item reflecting their opinion at the end of the eighth grade and at the same sitting reflect back to the time they first entered junior high and give their opinion to each question as of this earlier point in time.

POPULATION

All students who attended LaRue elementary schools in the sixth grade and who were enrolled in the eighth grade of LaRue Junior High during the 1979-80 school year were subjects of this study.

DATA COLLECTION

The attitude instrument was administered to students in their homerooms during the spring of 1980.

CTBS data was collected from students' permanent records.

ASSUMPTIONS AND LIMITATIONS

Students were asked to reflect back on their feelings as of the time they entered junior high. This study assumes that students were able to accurately reflect their opinions as of this earlier point in time.

The statistical analyses on the CTBS data of the study are limited to non-parametric statistics because the only data available for all students was reported in percentiles. Future work in this area should build upon raw scores or scale scores to allow more exacting analyses.

FINDINGS

The findings will be reported in four sections corresponding to the four hypotheses.

I. Student Preparation Upon Entering Seventh Grade By Feeder School.

Student preparation upon entering junior high is defined as the CTBS scores as of the end of sixth grade. The reasoning behind this set of analyses is to lay the groundwork for analyses concerned with learning gained over seventh grade. When it can be shown that students from all three elementary schools begun their junior high career at a relatively equal level, an analyses of their CTBS scores as of the end of seventh grade by feeder school can adequately be interpreted as showing the presence or absence of a relationship of learning in seventh grade and feeder school attended. When students do not begin at relatively similar levels, a weaker statistical analysis will be needed.

Tables 1 through 10 (see appendix) present the number of students in each quartile for each feeder school for the CTBS measures of vocabulary, comprehension, mechanics, expression, computation, concepts, application, total battery, science, and social studies at the end of sixth grade. Chi square analyses were

used to test whether a relationship existed between number of students in each quartile and feeder school attended. The level of probability set for the study was 0.05.

No significant differences (having a probability greater than 0.05) were found in the following five CTBS measures: (1) reading comprehension, (2) math computation, (3) math concepts, (4) math application, and (5) science. It can be concluded that students from the three feeder schools were relatively similar in preparation upon entering seventh grade and that analyses of seventh grade scoring can be meaningfully interpreted.

Significant differences were found in the five remaining CTBS measures: (1) vocabulary, (2) language mechanics, (3) language expression, (4) total battery, and (5) social studies. These last five analyses can be interpreted as saying that students from the three feeder schools begin with different levels of preparation.** As a result of these initial differences a direct contrast of seventh grade scores would not be meaningful. Consequently, a separate, although weaker, analyses of learning over seventh grade were planned. These analyses compared percentile gain (subtracting sixth grade percentile scores from seventh grade percentile scores). Three categories of percentile gain (1) considerable decrease (less than -6), (2) relative stability (from -5 to +5), and (3) considerable increase (greater than +6) were then contrasted with feeder school.

** (1) Vocabulary - B < H = M
(2) Language Mechanics - B < H < M
(3) Language Expression - B < H = M
(4) Total Battery - B < H = M
(5) Social Studies - B = H < M

II. The Relationship of Learning During Seventh Grade and Feeder School Attended

A. CTBS measures on which students were relatively similar upon entry into seventh grade

Reading Comprehension

A significant relationship was found between feeder school and reading comprehension. Table 11 shows the number of students in each quartile by elementary school attended. Magnolia students slightly outperformed Hodgenville students who in turn outperformed Buffalo students.

Math Computation

No significant relationship was found between feeder school and math computation. Table 12 presents the number of students in each quartile by school. It can be concluded that feeder school was not related to learning in math computation in the seventh grade.

Math Concepts

No significant relationship was found between feeder school and math concepts. Table 13 presents the number of students in each quartile by school. It can be concluded that feeder school was not related to learning in math concepts in the seventh grade.

Math Application

No significant relationship was found between feeder school and math application. Table 14 presents the number of students in each quartile by school. It can be concluded that feeder school was not related to increased learning in math applications in seventh grade.

Science

A significant relationship was found between feeder school and scoring in science. Table 15 shows the number of students in each quartile by feeder school. Hodgenville students slightly outperformed Magnolia students who in turn outperformed Buffalo students.

Over the five measures of seventh grade learning where students from the three feeder schools began relatively similar to each other two measures were found to show a relationship of learning by feeder school attended. Hodgenville and Magnolia students outperformed Buffalo students in reading comprehension and science in the seventh grade. No differences were found in any of the three math measures.

B. CTBS measures when students were not similar upon entry into seventh grade

Vocabulary

A significant relationship was found between learning gain in vocabulary and feeder school. Table 16 shows the number of students in each percentile gain category by feeder school attended. Magnolia students outperformed Hodgenville students who in turn outperformed Buffalo students.

Language Mechanics

No significant relationship was found between learning gain in language mechanics and feeder school. Table 17 shows the number of students in each percentile category by feeder school attended.

Language Expression

No significant relationship was found between learning gain in language expression and feeder school. Table 18 shows the number of students in each percentile category by feeder school attended.

Total Battery

A significant relationship was found between total battery learning gain and feeder school. Table 19 shows the number of students in each percentile category by feeder school attended. Magnolia students outperformed Hodgenville students who in turn outperformed Buffalo students.

Social Studies

No significant relationship was found between learning gain in social studies and feeder school. Table 20 shows the number of students in each percentile category by feeder school attended.

When the five measures of percentile learning gain were contrasted to feeder school attended it was found that two measures were significantly related to feeder school. Magnolia students were found to outperform Hodgenville students who in turn outperformed Buffalo students in vocabulary and total battery scores. No relationship was found between the other three measures and feeder school attended.

III. Student Attitude Upon Entering Seventh Grade

Each of the 24 items on the opinion survey will be reported by contrasting the mean score given by students from the three feeder schools. Mean scores were calculated by assigning a 5 to a response of strongly agree, 4 to agree, 3 to neutral, 2 to disagree, and 1 to strongly disagree. It should be noted that students were instructed to answer the items as they would have, "during the first few weeks of seventh grade."

Item 1 asked:

I have more personal freedom than I had in elementary school.

All groups had means above the neutral level (3.00) indicating that each group felt they were experiencing greater freedom during the early days of junior high. Hodgenville students scored significantly higher than Buffalo students indicating they felt freer than Buffalo students. The Hodgenville and Buffalo scores were not significantly different than those of Magnolia students.

TABLE 21

Means, (Standard Deviations), and n's of Three Feeder Schools Along with the Results of the Analysis of Variance for Item 1

Feeder School			Test of Significance	Probability Level
H	B	M		
4.19 (0.87) n=74 (a)	3.54 (1.20) n=35 (a)	3.81 (0.83) n=27	F=5.73*	P=0.004

Item 2 asked:

It is easier for me to ask questions in junior high as a result of this greater freedom.

All groups had means close to the neutral level (3.00). No significant differences separated the groups indicating that students from different feeder schools did not feel either more or less free to ask questions in junior high regardless of their perceived differences in freedom shown in item 1.

TABLE 22

Means, (Standard Deviations), and n's of
Three Feeder Schools Along with the
Results of the Analysis of Variance for Item 2

Feeder School			Test of Significance	Probability Level
H	B	M		
3.30 (1.15) n=73	3.00 (0.80) n=35	3.11 (1.12) n=27	F=1.03	P=0.36

Item 3 asked:

I like having different teachers for different subjects.

All groups reported means above the agree level (4.00) indicating that each group expressed favorable opinions regarding the variety of teachers they were experiencing in junior high. Hodgenville students scored significantly higher than Buffalo students indicating higher enjoyment in teacher variety. The Hodgenville and Buffalo scores were not significantly different from those given by Magnolia students.

TABLE 23

Means, (Standard Deviations), and n's of
Three Feeder Schools Along with the
Results of the Analysis of Variance for Item 3

Feeder School			Test of Significance	Probability Level
H	B	M		
4.67 (0.62) n=74 (a)	4.20 (1.26) n=35 (a)	4.33 (0.83) n=27	F=4.10*	P=0.02

Item 4 asked:

It is hard to remember the names of all of my teachers.

All groups reported means close to the disagree (2.00) level. No significant differences were found between groups indicating students from all three feeder schools did not experience difficulty in remembering the names of their teachers at the beginning of the school year.

TABLE 24

Means, (Standard Deviations), and n's of Three Feeder Schools Along with the Results of the Analysis of Variance for Item 4

Feeder School			Test of Significance	Probability Level
H	B	M		
1.92 (1.12) n=74	2.00 (1.14) n=35	2.22 (1.28) n=27	F=0.68	P=0.51

Item 5 asked:

Changing classrooms reduces boredom.

All groups reported means above the neutral (3.00) level. Hodgenville students scored significantly higher than Magnolia students indicating they found changing classes better at relieving boredom than did Magnolia students. No significant differences were found between these students and Buffalo students.

TABLE 25

Means, (Standard Deviations), and n's of Three Feeder Schools Along with the Results of the Analysis of Variance for Item 5

Feeder School			Test of Significance	Probability Level
H	B	M		
4.47 (1.01) n=74 (a)	3.94 (1.47) n=35	3.74 (1.23) n=27 (a)	F=4.79*	P=0.01

Item 6 asked:

Sometimes it is hard to get from one class to another on time.

All group means were between the neutral (3.00) level and the agree (4.00) level. There were no significant differences between groups indicating that students from all three feeder schools had experienced little frustration in getting from class to class on time.

TABLE 26

Means, (Standard Deviations), and n's of Three Feeder Schools Along with the Results of the Analysis of Variance for Item 6

Feeder School			Test of Significance	Probability Level
H	B	M		
3.30 (1.33) n=74	3.37 (1.54) n=35	3.89 (1.09) n=27	F=1.97	P=0.14

Item 7 asked:

Lockers are troublesome.

Group means were reported in the neutral (3.00) and disagree (2.00) levels. Magnolia students scored significantly higher than both Hodgenville and Buffalo students indicating that Magnolia students were generally neutral to the troublesome features of lockers whereas Hodgenville and Buffalo students expressed less dissatisfaction with lockers.

TABLE 27

Means, (Standard Deviations), and n's of Three Feeder Schools Along with the Results of the Analysis of Variance for Item 7

Feeder School			Test of Significance	Probability Level
H	B	M		
2.38 (1.44) n=74 (a)	2.34 (1.37) n=35 (b)	3.30 (1.40) n=27 (a) (b)	F=4.63*	P=0.01

Item 8 asked:

I have different friends than I had in elementary school.

All groups reported means close to the agree (4.00) level. No significant differences separated groups indicating that students from all feeder schools had about the same involvement in expanding their friendships.

TABLE 28

Means, (Standard Deviations), and n's of Three Feeder Schools Along with the Results of the Analysis of Variance for Item 8

Feeder School			Test of Significance	Probability Level
H	B	M		
4.05 (1.13) n=74	4.14 (1.14) n=35	4.00 (1.03) n=27	F=0.13	P=0.87

Item 9 asked:

Physical education is more enjoyable than it was in elementary school.

Means ranged from half a level above neutral (3.49) to about half a level below neutral (2.63). Hodgenville students scored significantly higher than Magnolia students indicating they enjoyed physical education more than Magnolia students. Neither Hodgenville nor Magnolia students scored significantly different from Buffalo students.

TABLE 29

Means, (Standard Deviations), and n's of Three Feeder Schools Along with the Results of the Analysis of Variance for Item 9

Feeder School			Test of Significance	Probability Level
H	B	M		
3.49 (1.32) n=74 (a)	3.11 (1.53) n=35	2.63 (1.45) n=27 (a)	F=3.85*	P=0.02

Item 10 asked:

Being a seventh grader is tough because eighth graders pick on younger students.

Means ranged from about neutral (2.96 and 2.91) to slightly above neutral (3.26). None of these means were significantly different indicating that students from all three feeder schools saw the problem of eighth graders picking on seventh graders about the same.

TABLE 30

Means, (Standard Deviations), and n's of
Three Feeder Schools Along with the
Results of the Analysis of Variance for Item 10

Feeder School			Test of Significance	Probability Level
H	B	M		
2.96 (1.52) n=74	2.91 (1.36) n=35	3.26 (1.29) n=27	F=0.53	P=0.59

Item 11 asked:

I like the A, B, C, D, F grading system.

Means for all groups ranged between the agree (4.00) level and the neutral (3.00) level. No significant differences separated groups indicating that students from all three feeder schools saw the present grading system similarly in that they all showed slightly greater than neutral approval of the system.

TABLE 31

Means, (Standard Deviations), and n's of
Three Feeder Schools Along with the
Results of the Analysis of Variance for Item 11

Feeder School			Test of Significance	Probability Level
H	B	M		
3.67 (1.25) n=73	3.89 (1.26) n=35	3.33 (1.57) n=27	F=1.34	P=0.26

Item 12 asked:

Junior high teachers are concerned about students' school work.

All groups reported means between neutral (3.00) and agree (4.00). No significant differences were found among groups indicating that students from all feeder schools agreed that junior high teachers were concerned about students' work.

TABLE 32

Means, (Standard Deviations), and n's of
Three Feeder Schools Along with the
Results of the Analysis of Variance for Item 12

Feeder School			Test of Significance	Probability Level
H	B	M		
3.65 (1.22) n=74	3.74 (1.38) n=35	3.59 (1.19) n=27	F=0.12	P=0.89

Item 13 asked:

Junior high teachers notice when I am absent.

All groups reported means between neutral (3.00) and agree (4.00). No significant differences were found indicating that students from all feeder schools agreed that junior high teachers noticed their absence.

TABLE 33

Means, (Standard Deviations), and n's of
Three Feeder Schools Along with the
Results of the Analysis of Variance for Item 13

Feeder School			Test of Significance	Probability Level
H	B	M		
3.80 (1.05) n=74	3.69 (1.41) n=35	3.81 (1.04) n=27	F=0.14	P=0.87

Item 14 asked:

Detention hall is a good way to discipline junior high students.

All groups reported means between the neutral (3.00) and disagree (2.00) level. No significant differences were found indicating that students from all feeder schools were moderately disagreeing with the concept of detention halls as an effective disciplinary measure.

TABLE 34

Means, (Standard Deviations), and n's of
Three Feeder Schools Along with the
Results of the Analysis of Variance for Item 14

Feeder School			Test of Significance	Probability Level
H	B	M		
2.60 (1.40) n=73	2.54 (1.52) n=35	2.44 (1.31) n=27	F=0.13	P=0.88

Item 15 asked:

Overall, I agree with the classroom discipline used by L.C.J.H.S. teachers.

All group means were just below the neutral (3.00) level. No significant differences were found between groups indicating slight disagreement with current classroom discipline by students from all three feeder schools. It might be noted that the disagreement expressed regarding classroom discipline was less negative than that expressed for detention halls.

TABLE 35

Means, (Standard Deviations), and n's of
Three Feeder Schools Along with the
Results of the Analysis of Variance for Item 15

Feeder School			Test of Significance	Probability Level
H	B	M		
2.97 (1.29) n=74	2.77 (1.29) n=35	2.81 (1.27) n=27	F=0.35	P=0.71

Item 16 asked:

Overall, I agree with the discipline technique used by the principal of Hodgenville Junior High.

Group means ranged from slightly above (3.12) to slightly below (2.69) neutral. No significant differences were found among groups indicating that on the average students of all three groups neither agreed nor disagreed with the discipline used by the principal of Hodgenville Junior High.

TABLE 36

Means, (Standard Deviations), and n's of
Three Feeder Schools Along with the
Results of the Analysis of Variance for Item 16

Feeder School			Test of Significance	Probability Level
H	B	M		
2.69 (1.39) n=74	3.11 (1.28) n=35	3.12 (1.31) n=26	F=1.67	P=0.19

Item 17 asked:

I miss the elementary school recess break.

All groups reported means between neutral (3.00) and agree (4.00). No significant differences were found between groups indicating that all groups agreed they were missing the elementary school recess.

TABLE 37

Means, (Standard Deviations), and n's of
Three Feeder Schools Along with the
Results of the Analysis of Variance for Item 17

Feeder School			Test of Significance	Probability Level
H	B	M		
3.25 (1.51) n=73	3.63 (1.42) n=35	3.89 (1.22) n=27	F=2.26	P=0.11

Item 18 asked:

I use the library more than I did in elementary school.

All groups reported means between neutral (3.00) and agree (4.00). No significant differences were found between groups indicating that all groups agreed they were using the library more than they had in elementary school.

TABLE 38

Means, (Standard Deviations), and n's of
Three Feeder Schools Along with the
Results of the Analysis of Variance for Item 18

Feeder School			Test of Significance	Probability Level
H	B	M		
3.50 (1.49) n=73	3.14 (1.54) n=35	3.78 (1.42) n=27	F=1.42	P=0.24

Item 19 asked:

I am learning more English than I did in elementary school.

All groups reported means between neutral (3.00) and agree (4.00). No significant differences were found between groups indicating students from all feeder schools felt they were learning more English than they had in elementary school.

TABLE 39

Means, (Standard Deviations), and n's of
Three Feeder Schools Along with the
Results of the Analysis of Variance for Item 19

Feeder School			Test of Significance	Probability Level
H	B	M		
3.75 (1.28) n=73	3.49 (1.15) n=35	3.59 (1.19) n=27	F=0.60	P=0.55

Item 20 asked:

I am learning more Math than I did in elementary school.

All groups reported means between neutral (3.00) and agree (4.00). No significant differences were found between groups indicating students from all feeder schools felt they were learning more Math than they had in elementary school.

TABLE 40

Means, (Standard Deviations), and n's of
Three Feeder Schools Along with the
Results of the Analysis of Variance for Item 20

Feeder School			Test of Significance	Probability Level
H	B	M		
3.91 (1.16) n=74	3.83 (1.18) n=35	3.48 (1.16) n=27	F=1.33	P=0.27

Item 21 asked:

I have more homework than I did in elementary school.

All group means were above neutral (3.00). Hodgenville and Buffalo students scored slightly above neutral whereas Magnolia students scored significantly higher. This indicates that Magnolia students felt they were having considerably more homework than students from the other two schools where students generally believed the homework increase over elementary school was slight.

TABLE 41

Means, (Standard Deviations), and n's of
Three Feeder Schools Along with the
Results of the Analysis of Variance for Item 21

Feeder School			Test of Significance	Probability Level
H	B	M		
3.04 (1.51) n=74 (a)	3.40 (1.46) n=35 (b)	4.37 (0.88) n=27 (a)	F=8.96*	P=0.0002

Item 22 asked:

I have trouble finding the correct school bus.

All groups scored between strongly disagree (1.00) and disagree (2.00). No significant differences were found between groups indicating that students from all three schools had no trouble finding the correct school bus.

TABLE 42

Means, (Standard Deviations), and n's of
Three Feeder Schools Along with the
Results of the Analysis of Variance for Item 22

Feeder School			Test of Significance	Probability Level
H	B	M		
1.51 (0.83) n=74	1.57 (0.95) n=35	1.63 (0.97) n=27	F=0.18	P=0.84

Item 23 asked:

I like being in junior high.

All groups reported means between the neutral (3.00) and agree (4.00) level. No significant differences were found between groups indicating that students from all three feeder schools generally agreed that they liked being in junior high.

TABLE 43

Means, (Standard Deviations), and n's of
Three Feeder Schools Along with the
Results of the Analysis of Variance for Item 23

Feeder School			Test of Significance	Probability Level
H	B	M		
3.93 (1.26) n=74	3.80 (1.32) n=35	3.44 (1.19) n=27	F=1.47	P=0.23

Item 24 asked:

I am looking forward to going to high school.

All groups reported means between the agree (4.00) and strongly agree (5.00) level. These were the highest means of the study. No significant differences were found between groups indicating that junior high students from all three feeder schools were looking forward to going to high school.

TABLE 44

Means, (Standard Deviations), and n's of Three Feeder Schools Along with the Results of the Analysis of Variance for Item 24

Feeder School			Test of Significance	Probability Level
H	B	M		
4.36 (1.03) n=74	4.29 (1.07) n=35	4.00 (1.21) n=27	F=1.14	P=0.32

IV. Changes in Student's Opinions Between the Time They Entered Junior High and the Time They Left Junior High

All items were responded to twice. One response, as previously reported, reflected how students felt during the first few weeks of junior high. The second response indicated how students felt toward the end of eighth grade. Entering seventh grade scores were subtracted from eighth grade scores to measure change across the years. This section will report the changes for each school on each item and discuss those changes where significant differences between groups were noted. Data is presented in table 45.

Only two of the 24 items had significantly different change scores between groups. Item three (I like having different teachers for

TABLE 45

Means of Change Scores of Three Feeder Schools Along with Results of the Analysis of Variance for All Items on Opinion Questionnaire

Item	Feeder School			Test of Significance	Level of
	Hodgenville	Buffalo	Magnolia	F-Ratio	Probability
1	-0.07	0.46	0.07	2.36	0.10
2	0.29	0.34	0.30	0.04	0.96
3	-0.12	0.29	0.30	3.86*	0.02
4	-0.47	-0.57	-0.44	0.16	0.85
5	-0.04	0.17	0.19	1.34	0.27
6	-0.20	-0.03	-0.48	1.26	0.29
7	-0.30	-0.31	-0.82	2.26	0.11
8	0.26	0.34	0.26	0.15	0.87
9	0.05	0.20	0.30	0.81	0.45
10	-0.42	-0.34	-0.44	0.05	0.95
11	-0.05	0.06	-0.04	0.58	0.56
12	0.05	-0.06	0.26	1.38	0.26
13	-0.03	-0.09	-0.11	0.12	0.89
14	-0.04	-0.09	0.22	2.16	0.12
15	-0.05	0.06	0.11	0.72	0.49
16	0.03	0.06	-0.04	0.19	0.83
17	-0.18	-0.23	-0.30	0.19	0.83
18	0.03	0.14	0.07	0.26	0.77
19	0.11	0.00	0.30	1.05	0.35
20	0.32	0.20	0.44	0.69	0.50
21	0.07	-0.03	0.00	0.20	0.82
22	-0.23	-0.31	-0.37	0.37	0.69
23	-0.12	0.09	0.41	3.19*	0.04
24	0.26	0.03	-0.04	1.48	0.23

* probability < 0.05

different subjects) and item 23 (I like being in junior high) show change across time differed by feeder school.

Originally Hodgenville students had scored the highest for liking different teachers (question three). Over time they decreased their scoring slightly whereas Magnolia and Buffalo students increased their scoring slightly. It appears that the initial satisfaction of having a variety of teachers was strongest for Hodgenville students but that this satisfaction decreased somewhat over time while Magnolia and Buffalo students' satisfaction increased slightly over time leading to similar scoring at the end of eighth grade.

Significant change also occurred to the item, "I like being in junior high." Initially Magnolia students scored about half a response category lower than Hodgenville students. Over their time in junior high Magnolia students increased their scores, Hodgenville decreased their scores and Buffalo held its position. The result was that the disparity in scoring changed over time and students from all three feeder schools ended with scoring just below the agree (4.00) level.

It was also found that certain items brought consistent increases or decreases over time for students from all three feeder schools. Items that increased over time were:

Item Number	Opinion Item
2	It is easier for me to ask questions in junior high as a result of this greater freedom.
8	I have different friends than I had in elementary school.
9	Physical education is more enjoyable than it was in elementary school.

18	I use the library more than I did in elementary school.
19	I am learning more English than I did in elementary school.
20	I am learning more Math than I did in elementary school.

Items that decreased over time for all students:

Item Number	Opinion Item
4	It is hard to remember the names of all of my teachers.
6	Sometimes it is hard to get from one class to another on time.
7	Lockers are troublesome.
10	Being a seventh grader is tough because eighth graders pick on younger students.
13	Junior high teachers notice when I am absent.
17	I miss the elementary school recess break.
22	I have trouble finding the correct school bus.

SUMMARY

The study was in two parts. The first part contrasted CTBS scores by feeder school. The second part looked at student's attitudes by feeder school.

CTBS Scores

CTBS scores were studied as of the end of sixth grade and again as of the end of seventh grade. Sixth grade scores represented preparation at the time of entry into junior high. Seventh grade scores measured learning over the first year in junior high.

Sixth Grade CTBS Data

Sixth grade CTBS scores by feeder school showed the following:

Vocabulary	B < H = M
*Reading Comprehension	B = H = M
Language Mechanics	B < H < M
Language Expression	B < H = M
*Math Computation	B = H = M
*Math Concepts	B = H = M
*Math Application	B = H = M
Total Battery	B < H = M
*Science	B = H = M
Social Studies	B = H < M

Areas that are starred show similar preparation by feeder school. Areas not starred show differences in preparation by feeder school and require the computation of learning gain (subtracting sixth grade percentile score from seventh grade percentile score) to measure learning. This second analyses is not as powerful as the first analyses and caution must be taken with its interpretation.

Seventh Grade CTBS Data

Learning during the first year in junior high showed the following differences by feeder school:

A. More Powerful Analyses

Reading Comprehension	B < H < M
Math Computation	B = H = M
Math Concepts	B = H = M
Math Application	B = H = M
Science	B < M < H

B. Less Powerful Analyses

Vocabulary	B < H < M
Language Mechanics	B = H = M
Language Expression	B = H = M
Total Battery	B < H < M
Social Studies	B = H = M

Interpretation of Sixth and Seventh Grade CTBS Data

Sixth and seventh grade CTBS findings can be interpreted as follows:

1. Junior high students showed similar preparation in five CTBS areas by feeder school (reading comprehension, math computation, math concepts, math application, and science).
2. Junior high students showed dissimilar preparation in five CTBS areas (vocabulary, language mechanics, language expression, total battery, and social studies). On four of these five measures (excluding social studies) Buffalo students scored lower than Hodgenville students. In all five areas Buffalo students scored lower than Magnolia students. In two areas Hodgenville students scored lower than Magnolia students.

3. Some differences in learning appeared to have occurred during seventh grade as a result of feeder school attended. Significant differences using strong statistical analyses were found in the CTBS areas of reading comprehension and science. In reading comprehension Magnolia students outperformed Hodgenville students who outperformed Buffalo students. In science Hodgenville students outperformed Magnolia students who outperformed Buffalo students. Differences in seventh grade percentile gain by feeder school were also found in vocabulary and total battery. These two analyses should only be interpreted as indications of learning differences because the statistical analyses were not as strong due to the uneven entry level scores of the groups. In both vocabulary and total battery percentile gain Magnolia students outperformed Hodgenville students who outperformed Buffalo students.

Student Attitudes

Students' attitudes were studied as of the beginning of seventh grade by collecting retroactive data. Students' attitudes were also studied as of the end of eighth grade. All attitude data was collected when students were in the last months of the eighth grade using a 24-item instrument.

Entry Attitudes

Initial differences in student attitudes by feeder school were found for the following items:

Item	Significant Differences Between
1. I have more personal freedom than I had in elementary school	Hodgenville (higher) and Buffalo (lower)
3. I like having different teachers for different subjects	Hodgenville (higher) and Buffalo (lower)
5. Changing classrooms reduces boredom	Hodgenville (higher) and Magnolia (lower)
7. Lockers are troublesome	Magnolia (higher) and both Buffalo and Hodgenville (lower)
9. Physical education is more enjoyable than it was in elementary school	Hodgenville (higher) and Magnolia (lower)
21. I have more homework than I did in elementary school	Magnolia (higher) and both Buffalo and Hodgenville (lower)

Exit Attitudes

When changes in attitudes were compared by feeder school, two items showed significant differences -- (item 3) I like having different teachers for different subjects and (item 23) I like being in junior high. Both of these items showed a coming together of differences originally expressed.

Five items brought consistent increases and seven items brought consistent decreases over time spent in junior high. These items are identified on pages 22 and 23.

Overall Conclusions

Some differences in learning appeared to have occurred during seventh grade as a result of feeder school attended. Significant differences using strong statistical analyses were found in the CTBS areas of reading comprehension and science. In reading comprehension Magnolia students outperformed Hodgenville students

who outperformed Buffalo students. In science Hodgenville students outperformed Magnolia students who outperformed Buffalo students. Differences in seventh grade percentile gain by feeder school were also found in vocabulary and total battery. These two analyses should only be interpreted as indications of learning differences because the statistical analyses were not as strong due to the uneven entry level scores of the groups. In both vocabulary and total battery percentile gain Magnolia students outperformed Hodgenville students who outperformed Buffalo students.

APPENDIX

TABLE 1

Number of Students in Three Schools Scoring in Four Quartiles in Vocabulary at the End of Sixth Grade

School	Quartile Placement				
	First	Second	Third	Fourth	
Hodgenville	11	21	20	25	77
Buffalo	14	7	12	5	38
Magnolia	6	7	11	5	29
	31	35	43	35	144

$x^2 = 12.55$, $p = 0.05$ *

TABLE 2

Number of Students in Three Schools Scoring in Four Quartiles in Reading Comprehension at the End of Sixth Grade

School	Quartile Placement				
	First	Second	Third	Fourth	
Hodgenville	11	19	28	19	77
Buffalo	11	11	11	5	38
Magnolia	5	6	11	7	29
	27	36	50	31	144

$x^2 = 5.61$, $p = 0.47$

TABLE 3

Number of Students in Three Schools Scoring in Four Quartiles in Language Mechanics at the End of Sixth Grade

	Quartile Placement				
School	First	Second	Third	Fourth	
Hodgenville	11	21	16	29	77
Buffalo	13	12	6	7	38
Magnolia	3	8	4	17	29
	27	38	26	53	144

$x^2 = 16.06$, $p = 0.01$ *

TABLE 4

Number of Students in Three Schools Scoring in Four Quartiles in Language Expression at the End of Sixth Grade

	Quartile Placement				
School	First	Second	Third	Fourth	
Hodgenville	10	19	25	23	77
Buffalo	12	15	8	3	38
Magnolia	4	7	11	7	29
	26	41	44	33	144

$x^2 = 14.55$, $p = 0.02$ *

TABLE 5

Number of Students in Three Schools Scoring in Four Quartiles in Math Computation at the End of Sixth Grade

School	Quartile Placement				
	First	Second	Third	Fourth	
Hodgenville	11	22	29	15	77
Buffalo	9	9	12	8	38
Magnolia	7	13	5	4	29
	27	44	46	27	144

$x^2 = 7.64$, $p = 0.27$

TABLE 6

Number of Students in Three Schools Scoring in Four Quartiles in Math Concepts at the End of Sixth Grade

School	Quartile Placement				
	First	Second	Third	Fourth	
Hodgenville	13	22	25	17	77
Buffalo	10	10	10	8	38
Magnolia	5	10	9	5	29
	28	42	44	30	144

$x^2 = 2.21$, $p = 0.90$

TABLE 7

Number of Students in Three Schools Scoring in Four Quartiles in Math Application at the End of Sixth Grade

	Quartile Placement				
School	First	Second	Third	Fourth	
Hodgenville	20	15	27	15	77
Buffalo	9	9	14	6	38
Magnolia	6	8	7	8	29
	35	32	48	29	144

$x^2 = 3.04$, $p = 0.80$

TABLE 8

Number of Students in Three Schools Scoring in Four Quartiles in Total Battery at the End of Sixth Grade

	Quartile Placement				
School	First	Second	Third	Fourth	
Hodgenville	10	24	21	22	77
Buffalo	11	9	12	6	38
Magnolia	5	6	15	3	29
	26	39	48	31	144

$x^2 = 12.54$, $p = 0.05$ *

TABLE 9

Number of Students in Three Schools Scoring in Four Quartiles in Science at the End of Sixth Grade

	Quartile Placement				
School	First	Second	Third	Fourth	
Hodgenville	13	20	22	22	77
Buffalo	7	10	15	6	38
Magnolia	3	5	9	12	29
	23	35	46	40	144

$x^2 = 6.38$, $p = 0.38$

TABLE 10

Number of Students in Three Schools Scoring in Four Quartiles in Social Studies at the End of Sixth Grade

	Quartile Placement				
School	First	Second	Third	Fourth	
Hodgenville	17	23	16	21	77
Buffalo	16	4	15	3	38
Magnolia	4	7	11	7	29
	37	34	42	31	144

$x^2 = 18.57$, $p = 0.005$ *

TABLE 11

Number of Students in Three Schools Scoring in Four Quartiles in Reading Comprehension at the End of Seventh Grade

School	Quartile Placement				
	First	Second	Third	Fourth	
Hodgenville	11	26	14	26	77
Buffalo	7	18	10	3	38
Magnolia	3	6	10	10	29
	21	50	34	39	144

$x^2 = 13.71$, $p = 0.03$ *

TABLE 12

Number of Students in Three Schools Scoring in Four Quartiles in Math Computation at the End of Seventh Grade

School	Quartile Placement				
	First	Second	Third	Fourth	
Hodgenville	12	15	32	18	77
Buffalo	7	10	12	9	38
Magnolia	4	6	15	4	29
	23	31	59	31	144

$x^2 = 3.45$, $p = 0.75$

TABLE 13

Number of Students in Three Schools Scoring in Four Quartiles in Math Concepts at the End of Seventh Grade

School	Quartile Placement				
	First	Second	Third	Fourth	
Hodgenville	6	26	26	19	77
Buffalo	9	13	10	6	38
Magnolia	2	12	12	3	29
	17	51	48	28	144

$x^2 = 10.26$, $p = 0.11$

TABLE 14

Number of Students in Three Schools Scoring in Four Quartiles in Math Application at the End of Seventh Grade

School	Quartile Placement				
	First	Second	Third	Fourth	
Hodgenville	7	25	32	13	77
Buffalo	12	10	10	6	38
Magnolia	5	7	14	3	29
	24	42	56	22	144

$x^2 = 11.31$, $p = 0.08$

TABLE 15

Number of Students in Three Schools Scoring in Four Quartiles in Science at the End of Seventh Grade

School	Quartile Placement				
	First	Second	Third	Fourth	
Hodgenville	6	19	37	15	77
Buffalo	12	10	13	3	38
Magnolia	5	5	15	4	29
	23	34	65	22	144

$x^2 = 13.42$, $p = 0.04$ *

Table 16

Number of Students in Three Schools By Percentile Gain (<6, ±5, >6) in Vocabulary Over Seventh Grade

School	Considerable Decrease in Percentile Placement (less than -6)	Relative Stability in Percentile Placement (-5 to +5)	Considerable Increase in Percentile Placement (Greater than 6)	
Hodgenville	31	31	15	77
Buffalo	21	13	4	38
Magnolia	4	13	12	29
	56	57	31	144

$x^2 = 15.44$, $p = 0.004$*

Table 17

Number of Students in Three Schools By
Percentile Gain (<6, ±5, >6) in Language Mechanics Over Seventh Grade

School	Considerable Decrease in Percentile Placement (Less than -6)	Relative Stability in Percentile Placement (-5 to +5)	Considerable Increase in Percentile Placement (Greater than 6)	
Hodgenville	27	16	34	77
Buffalo	13	8	17	38
Magnolia	12	7	10	29
	52	31	61	144

$X^2 = 0.93, \quad p = 0.92$

Table 18

Number of Students in Three Schools By
Percentile Gain (<6, ±5, >6) in Language Expression Over Seventh Grade

School	Considerable Decrease in Percentile Placement (less than -6)	Relative Stability in Percentile Placement (-5 to +5)	Considerable Increase in Percentile Placement (Greater than 6)	
Hodgenville	23	19	35	77
Buffalo	11	9	18	38
Magnolia	11	6	12	29
	45	34	65	144

$X^2 = 0.80, \quad p = 0.94$

Table 19

Number of Students in Three Schools By
Percentile Gain (<6, ±5, >6) in Total Battery Over Seventh Grade

School	Considerable Decrease in Percentile Placement (Less than -6)	Relative Stability in Percentile Placement (-5 to +5)	Considerable Increase in Percentile Placement (Greater than 6)	
Hodgenville	12	45	20	77
Buffalo	14	17	7	38
Magnolia	3	14	12	29
	29	76	39	144

$X^2 = 11.76, \quad p = 0.02^*$

Table 20

Number of Students in Three Schools By
Percentile Gain (<6, ±5, >6) in Social Studies Over Seventh Grade

School	Considerable Decrease in Percentile Placement (less than -6)	Relative Stability in Percentile Placement (-5 to +5)	Considerable Increase in Percentile Placement (Greater than 6)	
Hodgenville	21	25	31	77
Buffalo	8	14	16	38
Magnolia	10	8	11	29
	39	47	58	144

$X^2 = 1.60, \quad p = 0.81$